

REMARKS

Claims 1-30 are pending in this application. In the Office Action, claims 12-25 were withdrawn as being directed to a non-elected invention; and claims 1-11 and 26-30 are rejected over art. Reconsideration of the rejection is respectfully requested.

CLAIM REJECTION UNDER 35 U.S.C. §102

Claims 1-3, 6, 9-10, 26-29 are rejected under 35 U.S.C. § 102(e), as being anticipated by Na et al., (hereinafter “Na”) U.S. Patent 6,849,506. The rejection is respectfully traversed.

Na fails to disclose or suggest, *inter alia*, “a second portion of the floating gate formed over the semiconductor substrate to substantially overlap a portion of at least one of a source and drain implanted in the semiconductor substrate”, as recited in claim 1.

As shown in an example embodiment of the present invention, FIG. 1 illustrates a floating gate 106 contemplated as having two portions 106a and 106b, where the first portion 106a of the floating gate 106 is included in a gate stack 200 and the second portion 106b is included in a floating gate transistor 400 of a cell structure.

Na, on the other hand, discloses a non-volatile memory device having a gate insulation film 32 formed on a predetermined portion of a semiconductor substrate 31 and a first floating gate 33 formed on the gate insulation film 32. A first insulation film 34 is formed on the gate insulation film 32 and includes a contact hole that exposes the first floating gate 33 (FIG. 4). A second floating gate 36a is then formed in the contact hole and on part of the first insulation film 34 adjacent to the contact hole (col. 5, lines 24-32). In other words, Na discloses two floating gates 33 and 36a where the second floating gates 36a is formed on the first floating gate 33 (FIG. 4), rather than having a floating gate with first and second portions.

Accordingly, Na fails to disclose or suggest “a second portion of the floating gate formed over the semiconductor substrate”, as recited in claim 1.

With regards to independent claim 26, as similarly discussed above, Na fails to disclose or suggest “a second portion of the floating gate”.

Because Na fails to disclose each and every feature of the claimed invention, it cannot provide a basis for rejection under 35 U.S.C. §102.

Accordingly, Applicants submit that claims 1 and 26, and those claims dependent thereof are allowable over the prior art. Withdrawal of the rejection is respectfully requested.

CLAIM REJECTION UNDER 35 U.S.C. §103

Claims 4-5, 7-8, 11 and 30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Na. The rejection is respectfully traversed.

As discussed above, Na neither discloses nor suggests the claimed invention as found in claims 1 and 26, the independent claims from which the rejected claims depend. Na also fails to suggest the claimed invention. Thus, withdrawal of the rejection is respectfully requested.

For at least these reasons, Applicants respectfully submit that Na fails to disclose or render obvious the features recited in independent claims 1 and 26. Claims 2-11 and 27-30, which depend from the independent claims are likewise distinguished over the prior art for at least the reasons discussed as well for the additional features they recite. Reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

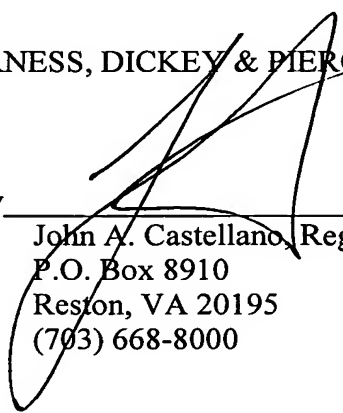
In view of the above remarks, reconsideration of the rejections and allowance of claims 1-11 and 26-30 are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below. If the Examiner believes that a personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (703) 668-8000.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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